

# Fact Sheet



## For Final Significant Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Significant Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on October 31, 2012.

Permit Number: **R30-10300010-2012**

Application Received: **June 11, 2015**

Plant Identification Number: **03-54-10300010**

Permittee: **Columbia Gas Transmission, LLC**

Facility Name: **Smithfield Compressor Station**

Mailing Address: **1700 MacCorkle Avenue, S.E., Charleston, WV 25314**

Permit Action Number: *SM02*      Revised: December 29, 2015

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Physical Location:	Smithfield, Wetzel County, West Virginia
UTM Coordinates:	539.68 km Easting • 4,370.03 km Northing • Zone 17
Directions:	Traveling north of U.S. Route 19 from Clarksburg to the intersection with State Route 20, turn left onto Route 20. Proceed west on Route 20 for approximately 1.8 miles past the town of Folsom to the station, which is on the left side of the road and visible.

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### Facility Description

Columbia Gas Transmission, LLC, Smithfield Compressor Station is a natural gas transmission facility covered by a Standard Industrial Classification (SIC) of 4922 and a North American Industrial Classification System (NAICS) of 48621. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The station currently consists of one (1) 3.4 MMBtu/hr heating system boiler, three (3) indirect-fired line heaters, two (2) 1500 HP natural gas fired reciprocating engines, one (1) 6,736 HP compressor turbine, one (1) 530 HP natural gas fired reciprocating engine with generator for emergency use only, and numerous storage tanks of various sizes. This modification will include the installation of one (1) additional solar turbine-driven compressor.

## Emissions Summary

This modification will result in the following change in potential emission:

Regulated Pollutants	Change in Potential Emissions (TPY)
Carbon Monoxide (CO)	+32.09
Nitrogen Oxides (NO <sub>x</sub> )	+18.30
Particulate Matter (PM <sub>10</sub> )	+1.33
Sulfur Dioxide (SO <sub>2</sub> )	+0.14
Volatile Organic Compounds (VOC)	+3.74
Formaldehyde	+0.14
Total HAPs	+0.21

## Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 554.14 tons of Nitrogen Oxides (NO<sub>x</sub>) per year and 102.3 tons of Carbon Monoxide (CO) per year. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Columbia Gas Transmission, LLC is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

## Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR13	Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation
	45CSR16	Standards of Performance for New Stationary Sources Pursuant to 40 C.F.R. Part 60.
	45CSR30	Operating permit requirement.
	40 CFR60 Subpart KKKK	Standards of Performance for Stationary Combustion Turbines
State Only:	None	

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

### Active Permits/Consent Orders

The following is the only permit related to this modification:

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit ( <i>if any</i> )
R13-2064G	08/24/2015	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

### Determinations and Justifications

This modification includes the following changes from R13-2064G:

- One (1) solar turbine-driven compressor (Emission Point ID-E06) has been added to the emission unit table. Applicable requirements were also added to the emission unit table.

#### **40 CFR 60 Subpart KKKK** (Standards of Performance for Stationary Combustion Turbines)

New Source Performance Standards (NSPS) apply to new, modified or reconstructed stationary sources meeting criteria established in 40 CFR Part 60. The USEPA has promulgated NSPS for stationary combustion turbines in 40 CFR 60 Subpart KKKK. Subpart KKKK applies to combustion turbines with a peak heat input of 10 MMBtu/hr and greater that commenced construction, modification or reconstruction after February 18, 2005. The proposed Solar Centaur 40 turbine (Emission Point ID-E06) has a heat input of 43.7 MMBtu/hr at 59 °F based on the higher heating value (HHV) of the fuel, and it will be subject to the requirements of Subpart KKKK. Sources covered by Subpart KKKK are exempt from the requirements in Subpart GG (the previous combustion turbine NSPS).

The emission limits associated with this rule include a NO<sub>x</sub> limit of 100 ppm at 15% O<sub>2</sub>, or 5.5 lb/MWh, and a SO<sub>2</sub> limit of 0.90 lb/MWh gross output, or burn any fuel that contains sulfur emissions in excess of 0.060 lb/MMBTU heat input. According to the specification sheet submitted by Columbia, these limits will be met. The new turbine is guaranteed by Solar to meet a NO<sub>x</sub> limit of 25ppm.

## Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

- 1) **40 CFR Part 60 Subpart OOOO** - Subpart OOOO (Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution) establishes standards for certain process equipment at oil and natural gas production sites. Affected sources include a single centrifugal compressor using wet seals that is located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. For the purposes of this subpart, this centrifugal compressor (Emission Point ID-E06) is considered to have commenced construction on the date the compressor is installed (excluding relocation) at the facility. A centrifugal compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.

The Smithfield Compressor Station is not located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. Therefore, all requirements regarding centrifugal compressors under 40 CFR 60 Subpart OOOO would not apply.

- (2) **40 C.F.R. 64 Compliance Assurance Monitoring (CAM)** – None of the current or proposed equipment utilize add-on controls. Therefore, the Smithfield Compressor Station is exempt from CAM requirements.
- (3) **40CFR63 Subpart YYYY** (National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines)

National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines does not apply to the stationary combustion turbine at the Smithfield Compressor Station since the facility is not a major source of HAP emissions.

## Request for Variances or Alternatives

None.

## Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

## Comment Period

Beginning Date:	Wednesday, November 11, 2015
Ending Date:	Friday, December 11, 2015

## Point of Contact

All written comments should be addressed to the following individual and office:

Beena Modi  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0499 ext. 1228 • Fax: 304/926-0478  
[Beena.j.modi@wv.gov](mailto:Beena.j.modi@wv.gov)

## **Procedure for Requesting Public Hearing**

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

## **Response to Comments (Statement of Basis)**

The Company's comments on the Draft/Proposed Permit and the factsheet for Smithfield Compressor Station were submitted by Lacey Ivey on November 24, 2015. The following is a response to those comments.

### ***Permit Comment***

#### **Comment 1:**

In the Permit, page 36 of 78, Columbia would like to request that Sections 15.0, 16.0, 17.0, 18.0, and 19.0 be removed because there is no equipment that is subject to these regulations. Additionally, these are all mentioned under the Permit Shield in Section 23.0.

#### **Response:**

We cannot remove Sections 15.0, 16.0, 17.0, 18.0, and 19.0 from the permit. Although this permit was issued as a source-specific permit, it was written in the format of the former Title V General Permit for Natural Gas Compressor Facilities and contains all requirements that a natural gas compressor station could potentially be subject to. The Table in Section 1.0 is used to indicate which of the requirements in Sections 2.0 through 24.0 are applicable to each emissions unit. To be consistent with the other Columbia Gas permits, we have to keep the standard boilerplate the way it is.

### ***Factsheet Comments***

#### **Comment 1:**

In the Fact Sheet, page 2 of 5, in the Facility Description, Columbia would like to request that the last sentence is changed to the following: "This modification will include the installation of one (1) additional solar turbine-driven compressor." Columbia would like the language regarding standby status be removed since these engines are not permitted for any restricted status, but instead for 8,760 operating hours.

#### **Response:**

Per Company's request, the sentence was changed to the following: "This modification will include the installation of one (1) additional solar turbine-driven compressor."

#### **Comment 2:**

In the Fact Sheet, page 3 of 5, in the Determinations and Justifications, the Subpart KKKK citation should be 40 CFR 60 instead of 40CFR60.

#### **Response:**

The Subpart KKKK citation was corrected in the Fact Sheet per Company's request.